

INTERNATIONAL SEARCH REPORT

International Application No
PCT/US2004/011702

A. CLASSIFICATION OF SUBJECT MATTER IPC 7 F03G7/06 C23C14/20 C22F1/00 F16K31/00		
According to International Patent Classification (IPC) or to both national classification and IPC		
B. FIELDS SEARCHED Minimum documentation searched (classification system followed by classification symbols) IPC 7 F03G C23C C22F F16K		
Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched		
Electronic data base consulted during the international search (name of data base and, where practical, search terms used) EPO-Internal		
C. DOCUMENTS CONSIDERED TO BE RELEVANT		
Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 5 061 914 A (BUSCH JOHN D ET AL) 29 October 1991 (1991-10-29)	29
Y	column 1, line 53 - column 2, line 37 column 3, line 18 - column 7, line 37 abstract; figures 1-3 -----	1-24, 30-33
Y	US 5 825 275 A (SU QUANMIN ET AL) 20 October 1998 (1998-10-20)	1-24, 30-33
A	column 1, line 45 - column 3, line 24 abstract; figures 1,2 -----	29
X	US 4 864 824 A (GABRIEL KAIGHAM J ET AL) 12 September 1989 (1989-09-12)	34
Y	column 1, line 13 - column 1, line 28 column 2, line 5 - column 4, line 47 abstract; figures -----	1-24, 30-33
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<div style="display: flex; justify-content: space-between;"> <input checked="" type="checkbox"/> Further documents are listed in the continuation of box C. <input checked="" type="checkbox"/> Patent family members are listed in annex. </div>		
<div style="display: flex;"> <div style="flex: 1;"> <p>* Special categories of cited documents:</p> <p>*A* document defining the general state of the art which is not considered to be of particular relevance</p> <p>*E* earlier document but published on or after the international filing date</p> <p>*L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)</p> <p>*O* document referring to an oral disclosure, use, exhibition or other means</p> <p>*P* document published prior to the international filing date but later than the priority date claimed</p> </div> <div style="flex: 1;"> <p>*T* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention</p> <p>*X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone</p> <p>*Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.</p> <p>*&* document member of the same patent family</p> </div> </div>		
Date of the actual completion of the international search	Date of mailing of the international search report	
13 September 2004	22/09/2004	
Name and mailing address of the ISA European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo nl, Fax: (+31-70) 340-3016	Authorized officer O'Shea, G	

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

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Y	WO 96/39547 A (UNIV CALIFORNIA) 12 December 1996 (1996-12-12) page 5, line 1 - page 9, line 33 abstract; figures 1-3 -----	1-24, 30-33
Y	EP 0 161 952 A (SOURIAU & CIE) 21 November 1985 (1985-11-21) page 5, line 1 - page 9, line 24 page 12, line 20 - line 29 page 15, line 7 - page 16, line 7 abstract; claims 1-3; figures -----	1-24, 30-33
A	US 6 236 300 B1 (MINNERS R SJHON) 22 May 2001 (2001-05-22) column 3, line 14 - column 6, line 60 abstract; figures -----	1-37
A	US 5 325 880 A (JOHNSON A DAVID ET AL) 5 July 1994 (1994-07-05) column 4, line 7 - column 5, line 41 abstract; figures -----	35,36
A	US 4 538 642 A (SCHUTTEN HERMAN P ET AL) 3 September 1985 (1985-09-03) column 1, line 39 - column 2, line 35 abstract; figures -----	35,36

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